

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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SERIAL NO.:

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TITLE: SPRINKLER PROVIDED WITH A BUILT-IN MECHANISM FOR DISPENSING
DETERGENT

Preliminary Amendment: CLAIM AMENDMENTS

1. (Currently amended) A sprinkler comprising:

a shunt of a cylinder type with an axial hole at the center. ~~The, a middle section of the~~
shunt is ~~provided with~~ having a radial notch connected vertically to ~~above-mentioned said~~ axial hole;
~~The, a base of the~~ shunt is ~~equipped with~~ having a pipe connector to link an existing aqueduct
connector. ~~Both, wherein both~~ sides of ~~this the~~ shunt are vertically equipped with two diversion
holes. ~~The, bases of both~~ diversion holes are being vertically connected to radial notch;

a water-control shaft of a round rod shape with a rotatable radial notch of shunt. ~~The~~
a middle section of the rod is provided with shaft having a concave main notch with ~~its~~ a width larger
than the radius of the rod, ~~as well as opposite shaft and~~ water panel. ~~Both of the, wherein both~~ radial
sides of the main notch ~~are equipped with~~ have two secondary notches. ~~The, radial positions of~~
secondary notches are being staggered for ~~disalignment, misalignment~~ of which opposite internal
edges of secondary notches are connected to main notch. ~~Along, wherein, along with the~~ rotation of
~~water-control the~~ shaft, wherein the radial side of secondary notch B1 ~~will be~~ is firstly connected to
a diversion hole A1. ~~Then and~~ the radial side of secondary notch B2 ~~will be~~ is connected to another
diversion hole A2;

a switch provided at one side of water-control shaft and exposed to the surface of shunt. ~~The end-user can hold it to rotate water-control shaft; and~~

a detergent storage pipe provided at the top of shunt and ~~composed~~ comprised of an internal pipe and a pipe case. ~~The, a~~ a base of the pipe case is being attached to the top of shunt while ~~the a~~ a top of the pipe case is provided with a reducing linkage member for ~~the~~ connection of preset sprinkler head fittings. ~~The; wherein an~~ an inlet of detergent is reserved at the top of one side of pipe case and ~~capable of providing~~ provides a hood to avoid ~~the~~ leakage of detergent ~~W1. The; wherein~~ an internal pipe is provided at the center of pipe case, ~~The and the~~ the base of pipe orifice is connected to the axial hole of shunt while the top of pipe orifice runs upwards until the top of linkage member of pipe case so as to form an outflow tube; and

wherein said detergent dispensing mechanism comprises a circular detergent tank ~~can be shaped~~, the base of the detergent tank is being connected to the diversion holes ~~A1, A2 of shunt.~~

2. (Currently amended) The sprinkler as defined in claim 1, wherein said internal pipe and pipe case are constructed separately, so as to form a concave notch hole within the linkage member of pipe case. ~~The; wherein a~~ a top center of the shunt is provided with a horizontal notch at the outlet of axial hole. ~~Thus; such that~~ the top end and base of the internal pipe is capable of inserting separately into above-mentioned notch hole and horizontal notch.

3. (Currently amended) The sprinkler as defined in claim 1, wherein said convex ring edge is formed at one side of water-control shaft far away from the switch, so as to provide a notch edge at the opposite side of shunt's radial notch and insert spacer by the convex ring edge. ~~A; wherein a~~

screw hole is provided at one side of water-control shaft so as to place a punching hole at the center of switch. ~~A;~~ and wherein screw bolt is applied to cross through the punching hole of the switch, and then fastened to the screw hole of water-control shaft. ~~At the same time, it is capable of, said screw bolt~~ assembling and positioning the switch and water-control shaft.

4. (Currently amended) The sprinkler as defined in claim 1, wherein said pipe case of the detergent storage pipe is ~~constructed~~ comprised of transparent materials, so as to enable the end-users to observe clearly internal residual detergent ~~W1~~.